

SEQUENCE LISTING

<110> Millennium Pharmaceuticals, Inc.
Meyers, Rachel
Silos-Santiago, Inmaculada

<120> 32544, a novel human phospholipase C and
uses thereof

<130> 38155-20048.00

<140> US 09/927,112

<141> 2001-08-10

<150> US 60/246,808

<151> 2000-11-08

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Thr	Leu	Thr	Ser	Lys	Ile	Leu	Phe	Lys	Asp	Val	Ile	Glu	Thr	Ile
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Lys	Tyr	Ala	Phe	Ile	Lys	Asn	Glu	Tyr	Pro	Val	Ile	Leu	Ser	Ile
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Asn	His	Cys	Ser	Val	Ile	Gln	Gln	Lys	Lys	Met	Ala	Gln	Tyr	Leu
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Asp	Ile	Leu	Gly	Asp	Lys	Leu	Asp	Leu	Ser	Ser	Val	Ser	Ser	Glu
	435						440					445		
Ala	Thr	Thr	Leu	Pro	Ser	Pro	Gln	Met	Leu	Lys	Gly	Lys	Ile	Leu
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Lys	Gly	Lys	Lys	Leu	Pro	Ala	Asn	Ile	Ser	Glu	Asp	Ala	Glu	Glu
465					470					475				480
Glu	Val	Ser	Asp	Glu	Asp	Ser	Ala	Asp	Glu	Ile	Asp	Asp	Asp	Cys
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Leu	Leu	Asn	Gly	Asp	Ala	Ser	Thr	Asn	Arg	Lys	Arg	Val	Glu	Asn
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Ala	Lys	Arg	Lys	Leu	Asp	Ser	Leu	Ile	Lys	Glu	Ser	Lys	Ile	Arg
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Cys	Glu	Asp	Pro	Asn	Asn	Phe	Ser	Val	Ser	Thr	Leu	Ser	Pro	Ser
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Lys	Leu	Gly	Arg	Lys	Ser	Lys	Ala	Glu	Glu	Asp	Val	Glu	Ser	Gly
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Asp	Ala	Gly	Ala	Ser	Arg	Arg	Asn	Gly	Arg	Leu	Val	Val	Gly	Ser
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Ser	Arg	Arg	Lys	Lys	Lys	Gly	Ser	Lys	Leu	Lys	Lys	Ala	Ala	Ser
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Glu	Glu	Gly	Asp	Glu	Gly	Gln	Asp	Ser	Pro	Gly	Gly	Gln	Ser	Arg
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Ala	Thr	Arg	Gln	Lys	Lys	Thr	Met	Lys	Leu	Ser	Arg	Ala	Leu	Ser
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Leu	Val	Lys	Tyr	Thr	Lys	Ser	Val	Ala	Thr	His	Asp	Ile	Glu	Met
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Ala	Ala	Ser	Ser	Trp	Gln	Val	Ser	Ser	Phe	Ser	Glu	Thr	Lys	Ala
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Gln	Ile	Leu	Gln	Gln	Lys	Pro	Ala	Gln	Tyr	Leu	Arg	Phe	Asn	Gln
		660						665					670	
Gln	Leu	Ser	Arg	Ile	Tyr	Pro	Ser	Ser	Tyr	Arg	Val	Asp	Ser	Ser
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Tyr	Asn	Pro	Gln	Pro	Phe	Trp	Asn	Ala	Gly	Cys	Gln	Met	Val	Ala
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Asn	Tyr	Gln	Ser	Glu	Gly	Arg	Met	Leu	Gln	Leu	Asn	Arg	Ala	Lys
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Ser	Ala	Asn	Gly	Gly	Cys	Gly	Tyr	Val	Leu	Lys	Pro	Gly	Cys	Met
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Gln	Gly	Val	Phe	Asn	Pro	Asn	Ser	Glu	Asp	Pro	Leu	Pro	Gly	Gln
		740						745					750	
Lys	Lys	Gln	Leu	Val	Leu	Arg	Ile	Ile	Ser	Gly	Gln	Gln	Leu	Pro
		755					760					765		

Pro	Arg	Asp	Ser	Met	Leu	Gly	Asp	Arg	Gly	Glu	Ile	Ile	Asp	Pro	Phe	770	775	780
Val	Glu	Val	Glu	Ile	Ile	Gly	Leu	Pro	Val	Asp	Cys	Ser	Arg	Glu	Gln	785	790	795
Thr	Arg	Val	Val	Asp	Asn	Gly	Phe	Asn	Pro	Thr	Trp	Glu	Glu	Thr		805	810	815
Leu	Val	Phe	Met	Val	His	Met	Pro	Glu	Ile	Ala	Leu	Val	Arg	Phe	Leu	820	825	830
Val	Trp	Asp	His	Asp	Pro	Ile	Gly	Arg	Asp	Phe	Ile	Gly	Gln	Arg	Thr	835	840	845
Leu	Ala	Phe	Ser	Ser	Met	Met	Pro	Gly	Tyr	Arg	His	Val	Tyr	Leu	Glu	850	855	860
Gly	Met	Glu	Glu	Ala	Ser	Ile	Phe	Val	His	Val	Ala	Val	Ser	Asp	Ile	865	870	875
Ser	Gly	Lys	Val	Lys	Gln	Ala	Leu	Gly	Leu	Lys	Gly	Leu	Phe	Leu	Arg	885	890	895
Gly	Pro	Lys	Pro	Gly	Ser	Leu	Asp	Ser	His	Ala	Ala	Gly	Arg	Pro	Pro	900	905	910
Ala	Arg	Pro	Ser	Val	Ser	Gln	Arg	Ile	Leu	Arg	Arg	Thr	Ala	Ser	Ala	915	920	925
Pro	Thr	Lys	Ser	Gln	Lys	Pro	Gly	Arg	Arg	Gly	Phe	Pro	Glu	Leu	Val	930	935	940
Leu	Gly	Thr	Arg	Asp	Thr	Gly	Ser	Lys	Gly	Val	Ala	Asp	Asp	Val	Val	945	950	955
Pro	Pro	Gly	Pro	Gly	Pro	Ala	Pro	Glu	Ala	Pro	Ala	Gln	Glu	Gly	Pro	965	970	975
Gly	Ser	Gly	Ser	Pro	Arg	Gly	Lys	Ala	Pro	Ala	Ala	Val	Ala	Glu	Lys	980	985	990
Ser	Pro	Val	Arg	Val	Arg	Pro	Pro	Arg	Val	Leu	Asp	Gly	Pro	Gly	Pro	995	1000	1005
Ala	Gly	Met	Ala	Ala	Thr	Cys	Met	Lys	Cys	Val	Val	Gly	Ser	Cys	Ala	1010	1015	1020
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Pro	Ala	Ser	Arg	Gln	Ala	Ala	Ile	Arg	Gln	Gln	Pro	Arg	Ala	Arg	Ala	1045	1050	1055
Asp	Ser	Leu	Gly	Ala	Pro	Cys	Cys	Gly	Leu	Asp	Pro	His	Ala	Ile	Pro	1060	1065	1070
Gly	Arg	Ser	Arg	Glu	Ala	Pro	Lys	Gly	Pro	Gly	Ala	Trp	Arg	Gln	Gly	1075	1080	1085
Pro	Gly	Gly	Ser	Gly	Ser	Met	Ser	Ser	Asp	Ser	Ser	Ser	Pro	Asp	Ser	1090	1095	1100
Pro	Gly	Ile	Pro	Glu	Arg	Ser	Pro	Arg	Trp	Pro	Glu	Gly	Ala	Cys	Arg	1105	1110	1115
Gln	Pro	Gly	Ala	Leu	Gln	Gly	Glu	Met	Ser	Ala	Leu	Phe	Ala	Gln	Lys	1125	1130	1135
Leu	Glu	Glu	Ile	Arg	Ser	Lys	Ser	Pro	Met	Phe	Ser	Ala	Gly	Lys	Pro	1140	1145	1150
Leu	Leu	Pro	Cys	Val	Val	Leu	Pro	His	Ala	Pro	Gly	Met	Ala	Gly	Pro	1155	1160	1165
Gly	Ser	Pro	Ala	Ala	Ala	Ser	Ala	Trp	Thr	Val	Ser	Pro	Arg	Val	Leu	1170	1175	1180
Val	Leu	Val	Ala	Leu	Tyr	Pro	Trp	His	Cys	Leu	Arg	Gly	Thr	Leu	Leu	1185	1190	1195
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<211> 85

<212> PRT

<213> Artificial Sequence

<220>

<223> Consensus amino acid

<400> 4

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Arg Tyr Phe Val Leu Phe Asn Asn Val Leu Leu Tyr Tyr Lys Asp Ser
 20           25           30
Lys Lys Lys Pro Lys Gly Ser Ile Pro Leu Ser Gly Cys Gln Val Glu
 35           40           45
Lys Pro Asp Lys Asn Cys Phe Glu Ile Arg Thr Asp Arg Thr Leu Leu
 50           55           60
Leu Gln Ala Glu Ser Glu Glu Arg Lys Glu Trp Val Lys Ala Ile
 65           70           75           80
Gln Ser Ala Ile Arg
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<210> 5

<211> 29

<212> PRT

<213> Artificial Sequence

<220>

<223> Consensus amino acid

<400> 5

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Glu Leu Lys Glu Ala Phe Lys Glu Phe Asp Lys Asp Gly Asp Gly Lys
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Ile Ser Phe Glu Glu Phe Lys Ala Ala Leu Lys Lys Leu
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<210> 6

<211> 29

<212> PRT

<213> Artificial Sequence

<220>

<223> Consensus amino acid

<400> 6

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 Ile Ser Phe Glu Phe Lys Ala Ala Leu Lys Lys Leu
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 <211> 153
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Consensus amino acid

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 20 25 30
 Tyr Arg Gln Gln Leu Asp Ala Gly Cys Arg Cys Val Glu Leu Asp Cys
 35 40 45
 Trp Asp Gly Lys Pro Asp Asp Glu Pro Ile Ile Tyr His Gly His Thr
 50 55 60
 Leu Thr Leu Glu Ile Lys Leu Lys Asp Val Leu Glu Ala Ile Lys Asp
 65 70 75 80
 Phe Ala Phe Lys Pro Thr Ser Pro Tyr Pro Val Ile Leu Ser Leu Glu
 85 90 95
 Asn His Cys Asn Ser Asp Asp Gln Gln Arg Lys Met Ala Lys Tyr Phe
 100 105 110
 Lys Glu Ile Phe Gly Asp Met Leu Leu Thr Lys Pro Thr Leu Asp Ser
 115 120 125
 Leu Thr Thr Glu Pro Gly Leu Pro Leu Pro Ser Leu Lys Asp Leu Arg
 130 135 140
 Gly Lys Ile Leu Leu Lys Asn Lys Lys
 145 150

<210> 8
 <211> 128
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Consensus amino acid

<400> 8
 Glu Leu Ser Asn Leu Val Asn Tyr Ile Gln Ser Ile Lys Phe Arg Ser
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 Phe Glu Leu Ser Gly Glu Glu Lys Asn Thr Ser Tyr Glu Ile Ser Ser
 20 25 30
 Phe Ser Glu Arg Lys Val Lys Ala Lys Lys Leu Leu Lys Glu Ser Pro
 35 40 45
 Val Glu Phe Val Lys Tyr Asn Lys Arg Gln Leu Ser Arg Val Tyr Pro
 50 55 60
 Lys Gly Thr Arg Val Asp Ser Ser Asn Phe Met Pro Gln Val Phe Trp
 65 70 75 80
 Asn Ala Gly Cys Gln Met Val Ala Leu Asn Phe Gln Thr Ser Asp Leu
 85 90 95
 Pro Met Gln Ile Asn Asp Gly Met Phe Glu Tyr Asn Gly Gly Gln Pro
 100 105 110

Asp Gly Ser Phe Lys Ser Gly Tyr Leu Leu Lys Pro Glu Phe Leu Arg
 115 120 125

<210> 9

<211> 95

<212> PRT

<213> Artificial Sequence

<220>

<223> Consensus amino acid

<400> 9

Leu Thr Val Thr Val Ile Glu Ala Arg Asn Leu Pro Lys Met Asp Lys
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 Val Asn Gly Arg Leu Ser Asp Pro Tyr Val Lys Val Ser Leu Leu Gly
 20 25 30
 Asp Lys Lys Asp Leu Lys Lys Phe Lys Thr Lys Val Val Lys Lys Thr
 35 40 45
 Asn Gly Leu Asn Pro Val Trp Asn Glu Glu Thr Phe Val Phe Glu Lys
 50 55 60
 Val Pro Leu Pro Glu Leu Ala Ser Lys Thr Leu Arg Phe Ala Val Tyr
 65 70 75 80
 Asp Glu Asp Arg Phe Ser Arg Asp Asp Phe Ile Gly Gln Val Thr
 85 90 95

<210> 10

<211> 325

<212> PRT

<213> Artificial Sequence

<220>

<223> Consensus amino acid

<400> 10

Gln Val Lys Gln Ala Leu Gly Leu Lys Gly Leu Phe Leu Arg Gly Pro
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 Lys Pro Gly Ser Leu Asp Ser His Ala Ala Gly Arg Pro Pro Ala Arg
 20 25 30
 Pro Ser Val Ser Gln Arg Ile Leu Arg Arg Thr Ala Ser Ala Pro Thr
 35 40 45
 Lys Ser Gln Lys Pro Gly Arg Arg Gly Phe Pro Glu Leu Val Leu Gly
 50 55 60
 Thr Arg Asp Thr Gly Ser Lys Gly Val Ala Asp Asp Val Val Pro Pro
 65 70 75 80
 Gly Pro Gly Pro Ala Pro Glu Ala Pro Ala Gln Glu Gly Pro Gly Ser
 85 90 95
 Gly Ser Pro Arg Gly Lys Ala Pro Ala Val Ala Glu Lys Ser Pro
 100 105 110
 Val Arg Val Arg Pro Pro Arg Val Leu Asp Gly Pro Gly Pro Ala Gly
 115 120 125
 Met Ala Ala Thr Cys Met Lys Cys Val Val Gly Ser Cys Ala Gly Val
 130 135 140
 Asn Thr Gly Gly Leu Gln Arg Glu Arg Pro Pro Ser Pro Gly Pro Ala
 145 150 155 160
 Ser Arg Gln Ala Ala Ile Arg Gln Gln Pro Arg Ala Arg Ala Asp Ser
 165 170 175
 Leu Gly Ala Pro Cys Cys Gly Leu Asp Pro His Ala Ile Pro Gly Arg

<400> 12
 Lys Arg Lys Ile Leu Ile Lys Asn Lys Lys Leu Lys Glu His Ser Glu
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 Glu Lys Glu Ser Glu Glu Lys Lys Thr Asp Glu Glu Thr Glu Ser Glu
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 Glu Glu Asp Glu Met Gly Ser Asp Ala
 35 40

<210> 13
 <211> 18
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Consensus amino acid

<400> 13
 Pro Gly Lys Glu Leu Pro Ser Pro Glu Glu Leu Lys Arg Lys Ile Leu
 1 5 10 15
 Ile Lys

<210> 14
 <211> 181
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Consensus amino acid

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 20 25 30
 Thr Leu Trp Trp Glu Pro His Trp Phe Ser Lys Lys Asp Ser Glu Lys
 35 40 45
 Pro Lys Phe Asp Ile Ser Asp Ile Lys Glu Ile Arg Met Gly Lys Asn
 50 55 60
 Thr Glu Thr Phe Arg Asn Asn Gly Lys Glu Phe Gln Ile Gln Glu Pro
 65 70 75 80
 Glu Asp Cys Cys Phe Ser Ile Ile Phe Gly Glu Asn Tyr Phe His Glu
 85 90 95
 Ser Leu Asp Leu Val Ala Asn Ser Ala Asp Val Ala Asn Ile Trp Val
 100 105 110
 Ser Gly Leu Arg Tyr Leu Val Asp Tyr Ala Lys His Met Leu Asp Asn
 115 120 125
 Tyr Gln Glu Gln Leu Asp Gln Trp Leu Arg Glu Trp Phe Gln Gln Ala
 130 135 140
 Asp Arg Asn Lys Asp Ser Arg Met Ser Phe Arg Glu Ala Gln Asn Leu
 145 150 155 160
 Leu Lys Leu Met Asn Val Gln Met Asp Glu Glu Tyr Ala Phe Ser Ile
 165 170 175
 Phe Arg Glu Cys Asp
 180

<210> 15
 <211> 134
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Consensus amino acid

<400> 15
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 1 5 10 15
 Ala Phe Lys Cys Ile Lys His Leu Asn Pro Arg Leu Lys His His Lys
 20 25 30
 Ile Thr Asn Lys Phe Lys Glu Ile Thr Ile Lys Ser Lys Glu Lys Glu
 35 40 45
 Arg Thr Lys Ile Thr Lys Glu His Phe Val Asp Leu Tyr Lys Glu Leu
 50 55 60
 Gly Thr Arg Pro Glu Val Tyr Phe Leu Met Val Gln Tyr Ser Lys Asn
 65 70 75 80
 Lys Asp Tyr Leu Asp Cys Gln Asp Leu Met Leu Phe Leu Glu Thr Glu
 85 90 95
 Gln Gly Met Val His Val Thr Glu Asp Asn Cys Leu Asp Ile Ile Glu
 100 105 110
 Gln Tyr Glu Pro Cys Ser Glu Gly Arg Glu Asn Gly Trp Met Thr Ile
 115 120 125
 Asp Gly Phe Thr Ser Tyr
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<210> 16
 <211> 92
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Consensus amino acid

<400> 16
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 Thr Glu Ala Ser Ile Phe Val His Ile Thr Ile Asn Glu Ile Tyr Gly
 20 25 30
 Lys Asn Arg Gln Leu Gln Gly Leu Lys Gly Leu Phe Asn Lys Asn Pro
 35 40 45
 Arg His Ser Ser Ser Glu Asn Asn Ser His Tyr Val Arg Lys Arg Ser
 50 55 60
 Ile Gly Asp Arg Ile Leu Arg Arg Thr Ala Ser Ala Pro Ala Lys Gly
 65 70 75 80
 Arg Lys Lys Ser Lys Met Gly Phe Gln Glu Met Val
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<210> 17
 <211> 51
 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT

<222> (1)...(51)

<223> Xaa = Any Amino Acid

<400> 17

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		20						25					30		
Glu	Asn	Gln	Ser	Thr	Ala	Gly	Cys	Xaa	Xaa	Asp	Glu	Leu	Ile	Val	Met
		35					40					45			
Phe	Tyr	Trp													
	50														